

DEPARTMENT of ENVIRONMENTAL SERVICES  
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: SCOTT POND	Lake Area (ha):	54.35
Town: FITZWILLIAM	Maximum depth (m):	2.6
County: Cheshire	Mean depth (m):	0.7
River Basin: Connecticut	Volume (m <sup>3</sup> ):	391000
Latitude: 42°47'15" N	Relative depth:	0.3
Longitude: 72°06'56" W	Shore configuration:	2.58
Elevation (ft): 1073	Areal water load (m/yr):	16.42
Shore length (m): 6750	Flushing rate (yr <sup>-1</sup> ):	22.80
Watershed area (ha): 1605.8	P retention coeff.:	0.50
% watershed ponded: < 0.10	Lake type:	natural w/dam

<u>BIOLOGICAL:</u>		3 February 1998	5 August 1997
DOM. PHYTOPLANKTON (% TOTAL)	#1	SPARSE - NO DOMINANT	UROGLENOPSIS 45%
	#2		MALLOMONAS 25%
	#3		DINOBYRON 12%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			10.22
DOM. ZOOPLANKTON (% TOTAL)	#1	SPARSE - NO DOMINANT	NAUPLIUS LARVA 22%
	#2		ROTIFER SPP. 20%
	#3		POLYARTHRA 17%
ROTIFERS/LITER		24	226
MICROCRUSTACEA/LITER			226
ZOOPLANKTON ABUNDANCE (#/L)		61	458
VASCULAR PLANT ABUNDANCE			Abundant
SECCHI DISK TRANSPARENCY (m)			1.5
BOTTOM DISSOLVED OXYGEN (mg/L)		5.0	5.6
BACTERIA (E. coli, #/100 ml)	#1		15
	#2		13
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>) : None  
Anoxic volume (m<sup>3</sup>) : None

**CHEMICAL:**

Lake: SCOTT POND  
Town: FITZWILLIAM

	3 February 1998		5 August 1997		
DEPTH (m)	1.0		1.0		2.0
pH (units)	5.2		5.4		5.4
A.N.C. (Alkalinity)	0.7		0.2		0.6
NITRATE NITROGEN	< 0.05		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.30		0.60		0.60
TOTAL PHOSPHORUS	0.007		0.016		0.136
CONDUCTIVITY ( $\mu$ mhos/cm)	51.3		40.6		40.4
APPARENT COLOR (cpu)	60		70		70
MAGNESIUM			0.35		
CALCIUM			1.7		
SODIUM			4.6		
POTASSIUM			0.29		
CHLORIDE	8		8		8
SULFATE	5		4		4
TN : TP	43		38		4
CALCITE SATURATION INDEX			6.4		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 1997**

D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
**	4	5	2	11	Eutro.

**COMMENTS:**

1. This pond was previously surveyed in 1982 and was also classified eutrophic at that time.
2. This is an acidic, dark tea-colored pond. Water clarity is only 5 feet but this is probably due more to the dark color than phytoplankton growth.
3. Only the western basin of the pond was surveyed. The eastern basin appeared to be even shallower than the west basin and contained dense macrophyte growth.

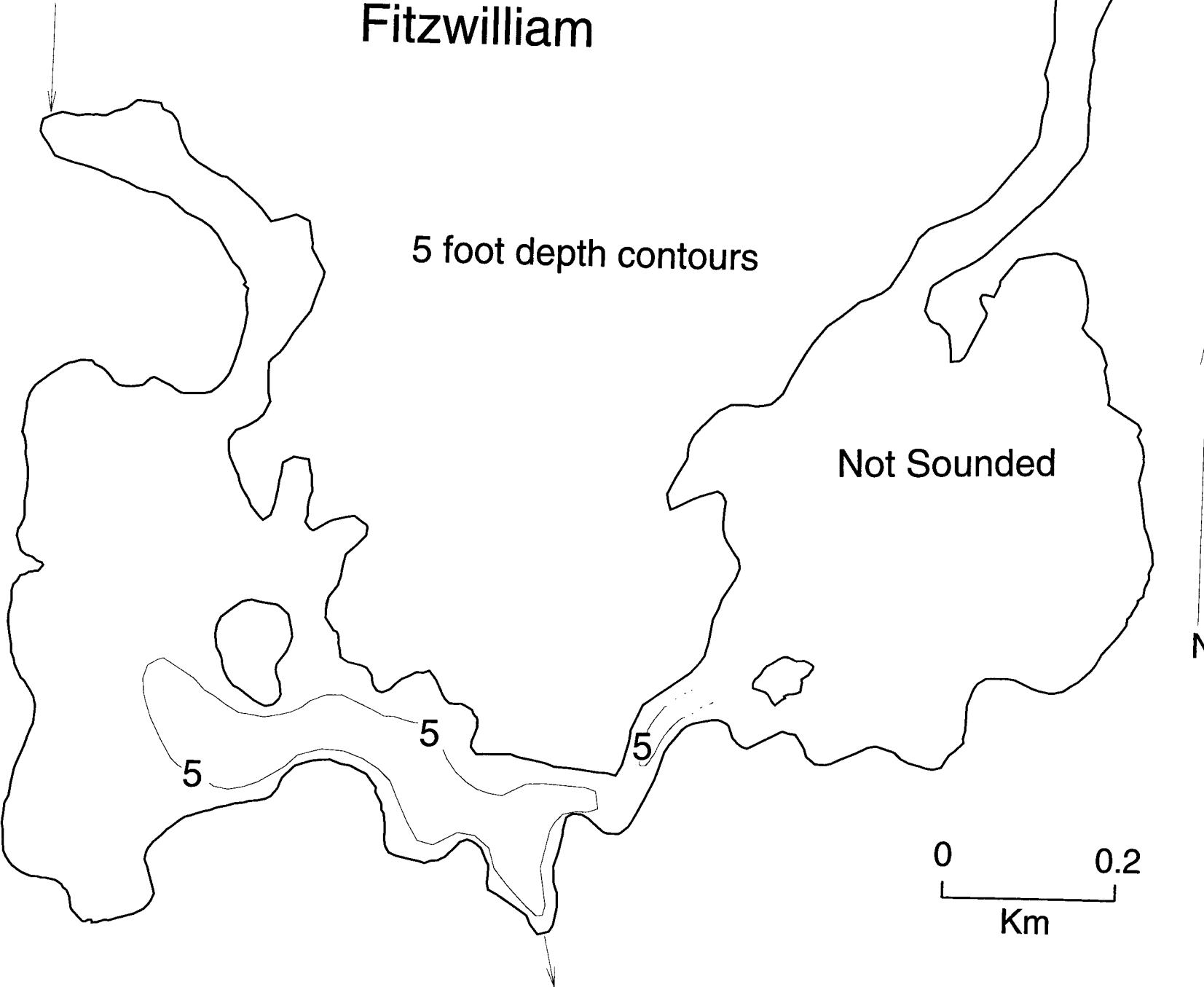
# Scott Pond

Fitzwilliam

5 foot depth contours

Not Sounded

111-210



0 0.2  
Km

## FIELD DATA SHEET

LAKE: SCOTT POND	TOWN: FITZWILLIAM
DATE: 08/05/97	WEATHER: COOL; SCATTERED CLOUDS

DATE: 08/05/97

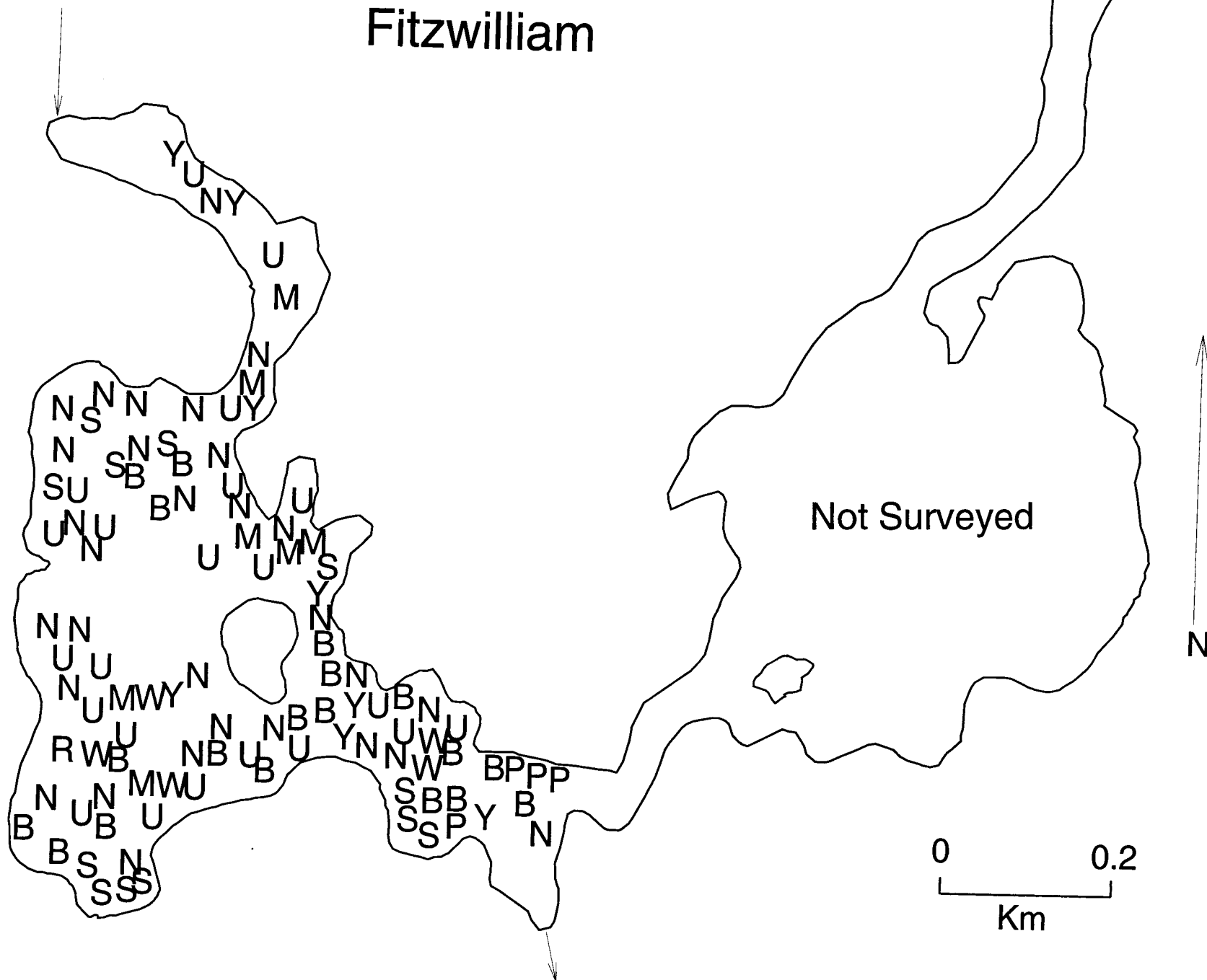
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SECCHI DISK (m):	1.5	COMMENTS:
BOTTOM DEPTH (m):	2.4	
TIME:	1345	
*Dissolved oxygen values are in mg/L		

BOTTOM DEPTH (m): 2.4

\*Dissolved oxygen values are in mg/L

# Scott Pond Fitzwilliam



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